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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,762	10/31/2001	Rainer Treptow	DT-6016	4302

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EXAMINER

HANDY, DWAYNE K

ART UNIT PAPER NUMBER

1743

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/001,762

Applicant(s)

TREPTOW, RAINER

Examiner

Dwayne K Handy

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 47,48 and 51-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 65 is/are allowed.
- 6) ☒ Claim(s) 47,48,51-56,58-64 and 66 is/are rejected.
- 7) ☒ Claim(s) 57 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09022004
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 51, 52, 55, 58-63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell (WO 98/57180) in view of Wood et al. (6,670,607). Bell teaches a probe that heats a sample or reagent while in contact with the probe. The probe is best shown in Figures 1 and 2. The probe includes an inner structure (26), an outer structure (28), an insulator (30) and a connector (32) element. The inner structure define a probe lumen (38) for retaining a fluid. Current is passed from an electrical supply (14) through the inner and outer structures to heat the fluid (page 8, lines 6-20 and page 9, lines 1-23). Bell does not teach a plastic based electrically conductive material. Bell instead uses a conductive stainless steel element to form the probe (page

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10, line 9-15). Bell recites the electrical supply elements on page 12, line 22 through page 13, line 27 and includes a temperature regulating device.

Wood teaches a conductive polymer coated pipette tip used in electrospray. The tip is shown in Figure 1 and described in column 6. The emitter tip (10) has a tapered body (12) with an inlet (14) and outlet (16) connected by a passage (18). Adhered to the exterior of the tip is a PANI coating (19). Wood states that their emitter is an improvement over metal tip emitters because they provide long term durability and allow for examination of materials in the emitter since the coating and tip are transparent (column 3, lines 1-27). Wood also states that regular tips acquired in bulk from a supplier may have the coating added to them by merely dipping them into the polymer (col. 6, lines 43-50). It would have been obvious to one of ordinary skill in the art to combine the tip of Wood with the probe of Bell. As stated by Wood, use of their tip instead of the steel tip of Wood would for the examination of materials in the probe. The use of Wood's probe would also allow for the use of disposable tips that would reduce the amount of cleaning required between multiple uses of the probe unit.

3. Claims 53, 56 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bell and Wood as applied to claims 51, 52, 55, 58-63 and 66 above, and further in view of Matteson (4,697,451). Bell and Wood, as combined above, teach every element of claims 53, 56 and 64 except for the capacitive sensor for measuring volume. Matteson teaches an apparatus for measuring volume in a dispensing capillary via capacitive measurements. The device is best shown in Figure 1 and described in

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column 4. It would have been obvious to one of ordinary skill in the art to add the volume measuring system and method of Matteson to the combined teachings of Bell and Wood. Bell already teaches a probe set up in which electrical signals and readings are used to control heat in the probe tip. One would add the teachings of Matteson to measure the volume of material in the probe.

#### ***Response to Arguments***

4. The Examiner has removed all previous rejections in light of applicant's amendment submitted 9/02/2004. The Examiner has now provided new rejections based on newly submitted/discovered prior art however. For this reason, the Office Action has not been made final by the Examiner. The Examiner apologizes for the previous oversight.

#### ***Allowable Subject Matter***

5. Claim 64 is allowed. In claim 64, applicant has claimed a method for tempering a specimen that includes use of a needle element. This feature was deemed allowable in the previous action.

6. Claim 57 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


**Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wiktor (6,232,129) teaches a piezoelectric pipette. Windolph (6,439,068) teaches a process for measuring liquid volume via capacitance measurements. Incavo (6,267,015) shows a device for sampling at elevated temperatures. Geiss et al. (5,287,758) teach a temperature controlled pipette tube.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH  
November 29, 2004

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700